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| APPLICATION NO.                     | FILING DATE                | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.            | CONFIRMATION NO.        |  |
|-------------------------------------|----------------------------|----------------------|--------------------------------|-------------------------|--|
| 10/826,840                          | 04/16/2004                 | Jung Pill Kim        | 2004P50585US/I331.138.101 2091 |                         |  |
| 7590 07/18/2005                     |                            |                      | EXAMINER                       |                         |  |
| Dicke, Billig & Czaja, PLLC         |                            |                      | ZWEIZIG, JEFFERY SHAWN         |                         |  |
| Fifth Street Tow<br>100 South Fifth | vers<br>Street, Suite 2250 |                      | ART UNIT                       | PAPER NUMBER            |  |
| Minneapolis, MN 55402               |                            |                      | 2816                           |                         |  |
|                                     |                            |                      | DATE MAILED: 07/18/2009        | DATE MAILED: 07/18/2005 |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |   | Applicant(s)  | • |
|---|---|---|---|
|   | Application No.   | Applicant(s)  |   |
| Office Action Commons   | 10/826,840  | KIM, JUNG PILL  |   |
| Office Action Summary   | Examiner  | Art Unit  | _ |
|   | Jeffrey S. Zweizig  | 2816  |   |
| The MAILING DATE of this communication app<br>Period for Reply  | ears on the cover sheet with the d  | correspondence address  |   |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 36(a). In no event, however, may a reply be tir<br>within the statutory minimum of thirty (30) day<br>ill apply and will expire SIX (6) MONTHS from<br>cause the application to become ABANDONE | nely filed  /s will be considered timely.  the mailing date of this communication.  ED (35 U.S.C. § 133). |   |
| Status  |   |   |   |
| 1) Responsive to communication(s) filed on 16 Ap  | oril 2004.  |   |   |
| ·= · · · · · · · · · · · · · · · · · ·  | action is non-final.  |   |   |
| 3) Since this application is in condition for allowar   | nce except for formal matters, pro  | osecution as to the merits is   |   |
| closed in accordance with the practice under E  | x parte Quayle, 1935 C.D. 11, 4   | 53 O.G. 213.  |   |
| Disposition of Claims   |   |   |   |
| 4) Claim(s) 1-23 is/are pending in the application.   | •   |   |   |
| 4a) Of the above claim(s) is/are withdraw   | vn from consideration.  |   |   |
| 5) Claim(s) is/are allowed.   |   |   |   |
| 6)⊠ Claim(s) <u>1-23</u> is/are rejected.   |   |   |   |
| 7) Claim(s) is/are objected to.   | •   |   |   |
| 8) Claim(s) are subject to restriction and/or   | election requirement.   | •   |   |
| Application Papers  |   |   |   |
| 9) The specification is objected to by the Examine  | <b>f.</b>   |   |   |
| 10)⊠ The drawing(s) filed on 16 April 2004 is/are: a)   | ⊠ accepted or b) objected to  | by the Examiner.  |   |
| Applicant may not request that any objection to the   |   | ·   |   |
| Replacement drawing sheet(s) including the correcti   | •   | · ·   |   |
| 11) The oath or declaration is objected to by the Ex  |   |   |   |
| Priority under 35 U.S.C. § 119  |   |   |   |
| 12) ☐ Acknowledgment is made of a claim for foreign   | priority under 25 LLS C S 110/o   | \   |   |
| a) ☐ All b) ☐ Some * c) ☐ None of:  1. ☐ Certified copies of the priority documents   |   | )-(d) or (1).   |   |
| <ol><li>Certified copies of the priority documents</li></ol>  | s have been received in Applicati   | ion No  |   |
| 3. Copies of the certified copies of the prior  | ·   | ed in this National Stage   |   |
| application from the International Bureau * See the attached detailed Office action for a list of   |   | nd.   |   |
| ·   | or the contined copies not receive  | ъч.   |   |
| Attachment(s)   |   |   |   |
| 1) X Notice of References Cited (PTO-892)   | 4) Interview Summary  |   |   |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Da   | ate   |   |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 4/16/04.   | 6) Other:   | atent Application (PTO-152)   |   |
|   |   |   |   |

## Claim Objections

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1. In claim 16 line 3, it would appear that -- and a PMOS transistor-- should be added between "transistor and "that".

## Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 7 and 9-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al. (USPN 5,831,472).

Fig. 4 discloses a threshold voltage detector 42, a comparator network 32-40 and a circuit block 48-70 configured and functioning as recited in claim 1.

Further shown is a PMOS transistor 44 and an NOMS transistor 46 manufactured as recited in claims 2-5 and 7.

Further shown is a pair of comparators 38 & 40 and a voltage reference network 32-36 configured and functioning as recited in claims 9-12.

Further shown is an inverter 50 & 52 with added transistors 58 & 60 as recited in claims 13 and 14.

Fig. 4 performs the methods recited in claims 15-23.

Note Fig. 4 shows the threshold voltage detector connected to the inverting inputs of the comparators along with inverters 41 & 39. This is seen to be functionally equivalent to Applicant's non-inverting comparator connections with no inverters as shown in Applicant's Fig. 3 & 4.

4. Claims 1 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Larsen et al. (6,407,611).

Fig. 4 discloses a threshold voltage detector 111 or 113, a comparator network 161 & 163 and a circuit block (coupled to output of 167) functioning as recited in claim 1 (see summary of the invention).

Further shown are NMOS transistors 111 or 113 and reference currents ID or nID as recited in claims 5 and 6.

As further noted in the summary of the invention, the dominant transistors may be PMOS transistors. That is, transistors 111 and 113 may be PMOS transistors as recited in claims 7 & 8.

## Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey S. Zweizig whose telephone number is (571) 272-1758. The examiner can normally be reached on Monday thru Wednesday 6:00 am to 6:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Primary Examiner Art Unit 2816